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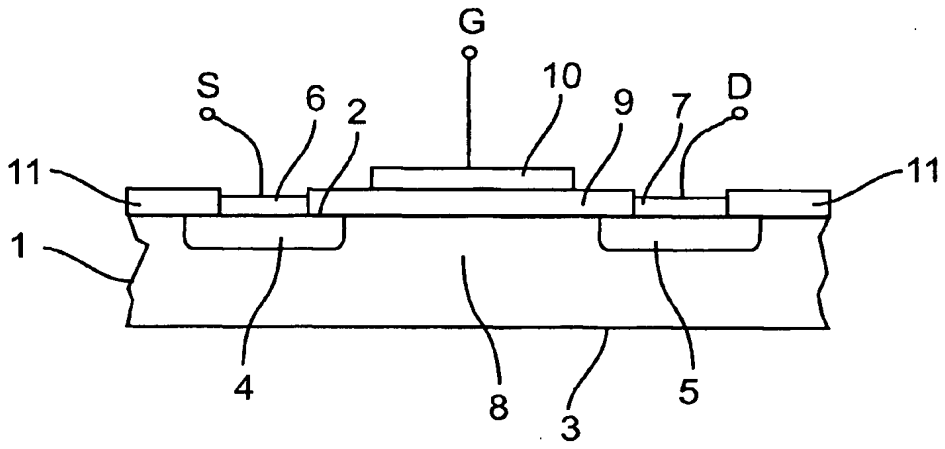
(54) Title: TRANSISTOR WITH QUANTUM DOTS IN ITS TUNNELLING LAYER



(57) Abstract: The invention describes a semiconductor component, which is arranged in a semiconductor body (1), with at least one source zone (4) and with at least one drain zone (5) of in each case a first conductivity type, with at least one body zone (8) of a second conductivity type arranged in each case between source zone and drain zone, and with at least one gate electrode (10) insulated relative to the semiconductor body by means of an insulating layer (9), the insulating layer (9) being a consolidated, preferably sintered, layer containing quantum dots. The invention further describes a method of producing such a semiconductor component in wich a dialectric suspension containing quantum dots is applied to a semiconductor body and then consolidated, for example by sintering.

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